

**ABSTRACT OF THE DISCLOSURE**

A knowledge management system captures, stores, manages, and applies rules for modeling geometric objects and related non-geometric attributes. The knowledge management system controls a computer-aided design system for modeling a geometric structure. The knowledge management system includes a knowledge management application in communication with the computer-aided design system through an application program interface. The knowledge management system also includes a central database managed by a knowledge storage application for maintaining rules and other related information. The knowledge management system also includes a knowledge acquisition application for generating rule programs for storage in the central database. The rules can relate to geometric and non-geometric attributes of the model.